

CLAIMS

1. A rear arm for a motorcycle comprising: left and right arm portions; pivot sections of a closed sectional shape that bond front ends of the left and the right arm sections each other; cross member sections of a closed sectional shape that bond the pivot sections of the left and the right arm sections and a section between rear wheel front edges each other, the pivot sections being pivotally supported by a body frame so as to swing freely in the vertical direction, and the rear wheel being axially supported between rear ends of the left and the right arm sections, characterized in that the rear arm consists of left and right arm molded bodies made of aluminum alloy die-cast, which are formed by dividing the pivot sections and the cross member sections into left and right parts along a body central line, and obtained by weld-bonding the left and the right arm molded bodies in the pivot sections and the cross member sections, the left and the right arm sections are formed in substantially a triangular shape in side view and formed in substantially a C shape opening toward the inner side in a width direction of the vehicle in cross-sectional view, and the cross member sections are formed in a closed sectional shape extending from vertexes to bases of the triangular shapes.

2. A rear arm for a motorcycle according to claim 1, wherein the cross member sections have rear vertical walls of an arc shape extending along the front edge of the rear wheel and front

vertical walls that are formed such that lengthwise spaces between the front vertical walls and the rear vertical walls are minimized in intermediate parts in the vertical direction and are widened toward upper or lower parts thereof.

3. A rear arm for a motorcycle according to claim 1 or 2, wherein one of the left and the right cross member sections is fit and inserted into the other of the left and the right cross member sections, and the fit and inserted part is welded.

4. A rear arm for a motorcycle according to any one of claims 1 to 3, wherein a support boss section, to which a link member of a rear wheel suspension system is coupled, is integrally formed on bottom surfaces of the cross member sections, and the support boss section is constituted by bringing integrally formed left and right boss sections into abutment against opposed surfaces of the left and the right cross member sections and weld-bonding the left and the right boss sections.

5. A rear arm for a motorcycle according to any one of claims 1 to 4, wherein the left and the right arm sections have main arm sections, which constitute the bases of the triangles formed by providing openings at the rear of the cross member sections, and reinforcing arm sections, which constitute hypotenuses of the triangle, and reinforcing plates are bonded to the left and the right arm sections at least in parts at the rear of the cross member sections of the main arm sections so as to close the openings of a C shape in cross section.

6. A rear arm for a motorcycle according to claim 5, wherein plural reinforcing ribs crossing one another are integrally formed on sidewalls of a C shape of the left and the right arm sections, dampers consisting of an elastic member are locked in crossing parts of the reinforcing ribs, and the dampers are pressed and intervened by the reinforcing plates.

7. A rear arm for a motorcycle according to any one of claims 1 to 6, wherein the left and the right arm molded bodies are cast by using die-cast molds having plural molten metal inlets, which are arranged along the bases or the hypotenuses of the triangles of the left and the right arm sections, and molten metal outlets, which are arranged so as to correspond to the molten metal inlets, and supplying molten metal in a direction traversing the triangles.

8. A rear arm for a motorcycle according to claim 7, wherein edges of the openings of a C shape in cross section is set thicker than the other parts, the molten metal inlets are formed at edges of the openings of the main arm sections constituting the bases, and the molten metal outlets are formed at edges of the openings of the reinforcing arm sections constituting the hypotenuses.